

Comparisons of Job Characteristics

Focus Occupation: **Civil Engineers (17-2051)**

Associated Occupation: **Construction and Building Inspectors (47-4011)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Construction and Building Inspectors (47-4011)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Building and Construction	4.0	21.4	21.6	0	Current knowledge level may be sufficient
Engineering and Technology	5.7	15.3	24.5	>>	Current knowledge level is likely more than sufficient
Design	5.2	14.0	23.4	>>	Current knowledge level is likely more than sufficient
Public Safety and Security	6.9	13.6	12.6	0	Current knowledge level may be sufficient
Mathematics	9.2	13.4	20.0	>>	Current knowledge level is likely more than sufficient
Mechanical	6.8	11.8	7.9	<<	Extensive education and/or training may be required
Physics	4.3	10.1	15.8	>>	Current knowledge level is likely more than sufficient
Law and Government	5.9	9.6	11.3	>	Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 71

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Construction and Building Inspectors (47-4011)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Complex Problem Solving	9.1	10.7	14.5	>>	Skill level is likely more than sufficient
Quality Control Analysis	5.9	9.0	10.6	>	Skill level is likely sufficient
Systems Evaluation	6.4	8.3	11.7	>>	Skill level is likely more than sufficient
Mathematics	6.2	8.1	15.7	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91				
Focus Occupation: Civil Engineers (17-2051) Associated Occupation: Construction and Building Inspectors (47-4011)						
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation		
Oral Expression	12.4	13.6	15.2	>	Current ability level is likely sufficient	
Oral Comprehension	12.5	13.5	15.5	>	Current ability level is likely sufficient	
Written Comprehension	11.0	12.5	14.9	>	Current ability level is likely sufficient	
Problem Sensitivity	11.1	11.9	15.4	>>	Current ability level is likely more than sufficient	
Near Vision	11.1	11.5	14.1	>	Current ability level is likely sufficient	
Deductive Reasoning	10.6	11.2	15.2	>>	Current ability level is likely more than sufficient	
Written Expression	9.8	11.2	12.6	>	Current ability level is likely sufficient	
Inductive Reasoning	10.2	11.1	14.4	>>	Current ability level is likely more than sufficient	
Far Vision	7.8	9.7	11.9	>	Current ability level is likely sufficient	
Visualization	7.5	9.3	14.1	>>	Current ability level is likely more than sufficient	

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 78
Focus Occupation: Civil Engineers (17-2051) Associated Occupation: Construction and Building Inspectors (47-4011)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Analyze technical data, designs, or preliminary specifications	47	
Compute production, construction, or installation specifications	58	
Conduct land surveys	81	
Confer with engineering, technical or manufacturing personnel	25	
Direct and coordinate activities of workers or staff	3	
Inspect facilities or equipment for regulatory compliance	51	
Inspect project operations, or site to determine specification compliance	72	
Operate land or site surveying instruments	80	
Perform safety inspections in construction or resource extraction setting	46	
Prepare reports	8	
Prepare technical reports or related documentation	22	

Read blueprints	10
Understand construction specifications	53
Understand government construction contracting regulations	87
Use knowledge of investigation techniques	16
Use knowledge of regulations in surveying or construction activities	78
Use land surveying techniques	80

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 84

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Construction and Building Inspectors (47-4011)

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Drafting supplies	9
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Measuring and layout tools	3
Microfilm equipment and supplies	43
Network applications software	1
Personal communication devices	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.